comments on DRAFT prospectus for Grand Swamp Mitigation Bank (UNCLASSIFIED)

Breaux, Brian W MVN to: frankie@res.us 11/20/2012 12:51 PM
"Patti_Holland@fws.gov", "Seth_Bordelon@fws.gov" ,
Cc: "joshua_marceaux@fws.gov", Tamara Mick, Raul Gutierrez,
"kbalkum@wlf.louisiana.gov", "rcdavis@wlf.la.gov" , "Archer,

From: "Breaux, Brian W MVN" <Brian.W.Breaux@usace.army.mil>
To: "frankie@res.us" <frankie@res.us>
Cc: "Patti_Holland@fws.gov" <Patti_Holland@fws.gov>, "Seth_Bordelon@fws.gov" <Seth_Bordelon@fws.gov>, "joshua_marceaux@fws.gov" <joshua_marceaux@fws.gov>, Tamara Mick/R6/USEPA/US@EPA, Raul Gutierrez/R6/USEPA/US@EPA,

Follow Up: Low Priority. Follow up on 11/27/2012 at 09:00 AM.

1 attachment

pic05049.gif

Classification: UNCLASSIFIED
Caveats: NONE

Mr. Savoy:

We have reviewed the DRAFT prospectus provided for the Grand Swamp Mitigation Bank and offer the following comments:

1) It is only necessary to include the preliminary JD map. All other pages with this map may be removed.

2) The information for Current Soils (3.2) is not complete and therefore may be misleading. Based on published soils information, at least 50% of this complex is classified as non-hydric.

3) The information for Hydroperiod (3.3) is not entirely correct. Soils characterization as 'hydric' does not necessitate inundation nor that it occur in the "recent past".

4) Figure 2 depicts 2 locations for cross-section A - A'. The A - A' work appears to conflict with the B - B' cross-section work at the southernmost location.

5) Two (2) drainages have been identified that affect the property and are proposed to be degraded. Are there any additional drainages located on the property or that abut/adjoin the property? If so, please clearly identify them and discuss influence on the site.

6) How do the non-mitigation features (roads and ROW) affect surface hydrology? Is the elevation of these features above that of the adjoining lands? Are there roadside ditches? Which are roads and which are ROW? What type and size?

The DRAFT prospectus was forwarded to the appropriate IRT members for comment. Responses to this solicitation are attached.

General concern:

The majority of the site is non-jurisdictional in its current condition. The topography and geomorphology is a ridge and swale complex formed from meandering and overbank flooding of the Mississippi River. Substantial flood protection or drainage improvements beyond the control of the Sponsor will remain in place and affect the hydrologic characteristics of the broader area inclusive of the proposed bank site. Soils are mapped by NRCS as Dundee-Alligator complex.

The area of effect of the proposed hydrologic restoration is limited to the area of the work within the mitigation bank and does not address the broader influences on site hydrology (Sec 3.1). CEMVN has concerns that site hydrology will not be sufficiently altered with the minimal work proposed to "restore" the complete site as discussed in the DRAFT prospectus to wetlands. These concerns will need to be addressed in a draft MBI but you may want to begin attempting to address these concerns in the Prospectus.

Brian W. Breaux
CEMVN Regulatory Branch
Special Projects & Policy Team
(504) 862-1938
brian.w.breaux@usace.army.mil

For information about mitigation banking in the New Orleans District, please see our web page:
http://www.mvn.usace.army.mil/ops/regulatory/Mit_program.asp

To get to RIBITS, click here:
https://rsgis.crrel.usace.army.mil/ribits/f?p=107

Classification: UNCLASSIFIED
Caveats: NONE

----- Message from "Gutierrez.Raul@epamail.epa.gov" <Gutierrez.Raul@epamail.epa.gov> on Fri, 9 Nov 2012 22:14:38 +0000 -----

To: "Breaux, Brian W MVN" <Brian.W.Breaux@usace.army.mil>
Subject: Re: FW: Grand Swamp Mitigation Bank - draft prospectus (UNCLASSIFIED)

Brian,

I have reviewed the draft prospectus for the Grand Swamp mitigation Bank. Overall, it looks good to me and the site seems appropriate for use in compensating for losses to waters of the U.S. We look forward to reviewing the Public Notice and banking instrument.

Raul Gutierrez, Ph.D.

Wetlands Section (6WQ-EM)
US EPA Region 6
1445 Ross Ave., Suite 1200
Dallas, Texas 75202
214-665-6697

From: "Breaux, Brian W MVN" <Brian.W.Breaux@usace.army.mil>

Re: FW: Grand Swamp Mitigation Bank - draft prospectus (UNCLASSIFIED)

Raul Gutierrez to: Breaux, Brian W MVN 11/09/2012 04:15 PM

From: Raul Gutierrez/R6/USEPA/US
To: "Breaux, Brian W MVN" <Brian.W.Breaux@usace.army.mil>

Brian,

I have reviewed the draft prospectus for the Grand Swamp mitigation Bank. Overall, it looks good to me and the site seems appropriate for use in compensating for losses to waters of the U.S. We look forward to reviewing the Public Notice and banking instrument.

Raul Gutierrez, Ph.D.

Wetlands Section (6WQ-EM)
US EPA Region 6
1445 Ross Ave., Suite 1200
Dallas, Texas 75202
214-665-6697

"Breaux, Brian W MVN" Classification: UNCLASSIFIED Caveats: NOI 10/26/2012 03:00:12 PM

From: "Breaux, Brian W MVN" <Brian.W.Breaux@usace.army.mil>
To: "patti_holland@fws.gov" <patti_holland@fws.gov>, "seth_bordelon@fws.gov" <seth_bordelon@fws.gov>, "joshua_marceaux@fws.gov" <joshua_marceaux@fws.gov>, Tamara Mick/R6/USEPA/US@EPA, Raul Gutierrez/R6/USEPA/US@EPA, "richard.hartman@noaa.gov" <richard.hartman@noaa.gov>, "patrick.wlliams@noaa.gov" <patrick.wlliams@noaa.gov>, "lisa.abernathy@noaa.gov" <lisa.abernathy@noaa.gov>, "Kelley.templet@la.gov" <Kelley.templet@la.gov>, "dana.pennington@la.gov" <dana.pennington@la.gov>, "jim.holcombe@la.gov" <jim.holcombe@la.gov>, "kbalkum@wlf.louisiana.gov" <kbalkum@wlf.louisiana.gov>, "rcdavis@wlf.la.gov" <rcdavis@wlf.la.gov>
Cc: "Archer, Brenda A MVN" <Brenda.A.Archer@usace.army.mil>, "Farabee, Jacqueline R MVN" <Jacqueline.R.Farabee@usace.army.mil>, "Pfeffer, Stephen D MVN" <Stephen.D.Pfeffer@usace.army.mil>
Date: 10/26/2012 03:00 PM
Subject: FW: Grand Swamp Mitigation Bank - draft prospectus (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

ALL: Please find attached a DRAFT Prospectus for the Grand Swamp Mitigation Bank located in Pointe Coupee Parish. Comments are requested by November 16, 2012. Thanks, Brian

-----Original Message-----
From: Frankie Savoy [mailto:frankiesavoy@gmail.com]
Sent: Friday, October 26, 2012 1:57 PM
To: Breaux, Brian W MVN
Subject: Re: Grand Swamp Mitigation Bank - draft prospectus (UNCLASSIFIED)

Mr. Breaux,

Attached is the PDF copy of the Grand Swamp Mitigation Bank Draft Prospectus per your request. Please do not hesitate to let me know if any additional information is needed at this time.

Thank you for your time and consideration.

Best Regards,

Frankie

Frankie Savoy
Account Executive
Resource Environmental Solutions, LLC
1200 Camellia Blvd, Suite 101
Lafayette, LA 70508
225.372.6106 - Direct
337.580.2781 - Mobile
frankie@res.us
www.res.us

On Oct 26, 2012, at 10:49 AM, frankie@res.us wrote:

Brian,

Yes sir, I sure can. I am out of the office for another 2 hours or so, and will email this to you as soon as I return.

Thanks so much.

Frankie Savoy
RES
mobile: 337.580.2781
Sent from my iPhone

On Oct 26, 2012, at 10:19 AM, "Breaux, Brian W MVN" <Brian.W.Breaux@usace.army.mil> wrote:

Classification: UNCLASSIFIED

Caveats: NONE

Frankie: We have received the FedEx package containing the Draft Prospectus for the Grand Swamp Mitigation Bank. Is it possible for you to provide the draft prospectus including attachments in pdf file format? Your assistance in this matter would be appreciated.

Brian W. Breaux

CEMVN Regulatory Branch

Special Projects & Policy Team

DRAFT PROSPECTUS

GRAND SWAMP MITIGATION BANK
POINTE COUPEE PARISH, LOUISIANA

PREPARED FOR
U.S. Army Corps of Engineers
New Orleans District
New Orleans, Louisiana

PREPARED AND SUBMITTED BY
Fourth Louisiana Resource, LLC
Resource Environmental Solutions, LLC
412 N. Fourth Street, Suite 300
Baton Rouge, Louisiana 70802

GRAND SWAMP MITIGATION BANK
Pointe Coupee Parish, Louisiana
October 17, 2012

TABLE OF CONTENTS

DRAFT PROSPECTUS
Fourth Louisiana Resource, LLC
Grand Swamp Mitigation Bank
Pointe Coupee Parish, Louisiana

1.0 INTRODUCTION

Fourth Louisiana Resource, LLC (4LR) submits this Draft Prospectus to the U.S. Army Corps of Engineers – New Orleans District (CEMVN) and Interagency Review Team (IRT) to initiate evaluation of the proposed Grand Swamp Mitigation Bank (GSMB) in accordance with 33 CFR 332.8(d)(2). The details pertaining to the use of this site as a mitigation bank will be specified in the subsequent Mitigation Banking Instrument (MBI).

Bank Sponsor and Owner
4LR is the Sponsor of the GSMB. The land is owned in fee title by 4LR, which will also assume long-term ownership and management of the GSMB.

Site Location
The GSMB is approximately 258.6 acres and will provide 231.5 acres of re-established bottomland hardwood forested wetland ecosystem, 5.9 acres of re-established baldcypress/tupelo swamp ecosystem, and 9.0 acres of rehabilitated baldcypress/tupelo swamp ecosystem. The site is located in Section 101, Township 5S, Range 10W, of Pointe Coupee Parish, Louisiana (Figure 1). The GSMB is contained entirely within the area known as "The Island," south of New Roads, Louisiana in the Lower Grand Watershed, HUC 08070300.

Driving Directions
- From US Highway 190, turn **north** onto LA Highway 413 (Bayou Poydras Road)
- In 4.8 miles, turn **left** onto LA Highway 416
- In 0.2 miles, turn **right** onto Highway 413
- In 0.5 miles, turn **left** onto Highway 414
- In 2.5 miles, turn **right** onto Woodview lane
- From this point, arrangements must be made with the landowner to reach the site

2.0 GOALS AND OBJECTIVES

The goal of the GSMB is the re-establishment of bottomland hardwood forest and the re-establishment and rehabilitation of baldcypress/tupelo swamp in the Lower Grand Watershed, HUC 08070300. Table 1 shows the current and proposed habitat types.

Table 1: Current Habitat Types, Land Use, and Proposed Mitigation Type

Present Habitat Type	Proposed Habitat Type	Current Land Uses	Mitigation Types	Acreage
Non-Wetland Pasture	Bottomland Hardwood	Cattle Grazing	Re-Establishment	**231.5**
Other U.S. Waters	Baldcypress/ Tupelo Swamp	Drainage	Re-Establishment	**5.9**
Emergent Wetlands	Baldcypress/ Tupelo Swamp	Cattle Grazing	Rehabilitation	**9.0**
Non-Wetland	Non-Wetland/ Roads	Roads and Rights-of-Way	Non-Mitigation	**12.2**
Total Wetlands	—	—	—	**246.4**
Total	—	—	—	**258.6**

2.1 Aquatic Function Improvements

Below are proposed actions anticipated to improve aquatic functions:

- The removal of interior ditching and culverts to restore natural sheet flow across the property
- Removal of hay and livestock production from the property to increase water quality downstream of the site
- Soil preparation and vegetative plantings to restore natural vegetation across the property
- Restoration of surface hydrology through the re-establishment of natural sheet flow to restore the historic wetland functions and values of the project site
- Long-term maintenance to prevent colonization by noxious and invasive species, erosion along interfaces of drainageways, and trespass vandalism
- Vegetative plantings as well as the restoration of the historic hydroperiod across the property to create improved wildlife habitat
- Hydrologic restoration to increase the retention time of surface water and saturation, reducing nonpoint source runoff and increasing water quality through increased nutrient uptake by hydrophytic vegetation

3.0 ECOLOGICAL SUITABILITY OF THE SITE

3.1 Historical Site Conditions

The GSMB historically contained bottomland hardwood habitat with hydric soils. Topographically, the site exhibits the ridges and swales typically formed by the meandering of the Mississippi River.

Examination of historical photographs shows that the majority of the GSMB site has been kept in a pastoral state since at least 1941. Since that time, the property has been used primarily for cattle grazing. Although cattle pasture dominates the project area, emergent and scrub-shrub wetland habitat persists in the central portion of the project area as well as along overgrown fencerows and property boundaries around the perimeter of the project area.

Locally, the higher elevation areas were converted to agricultural use first. A canal system built in the 1970s and 1980s by the USDA Soil Conservation Service drained the surrounding area, opening up more land for agriculture. As it stands currently, the GSMB and much of the surrounding area has now been converted to agricultural land.

3.2 Current Site Conditions and Characteristics

The years of cattle grazing has severely impacted the GSMB site beyond the removal of native vegetation. As a result of efforts to facilitate drainage and enhance pasture grass growth, the natural hydrology of the GSMB lands is currently impaired. Water from within the project area currently drains via sheet flow into man-made drainage ditches, which then flow into drainage canals offsite. These canals drain to the south and eventually into False River. Additionally, many years of cattle production on the site's pastures has resulted in the formation of a compacted upper region in the soil.

Current Vegetation

Typical dominant vegetation in the cattle pasture includes sugarberry (*Celtis laevigata*), water oak (*Quercus nigra*), sweet pecan (*Carya illinoinensis*), bahiagrass (*Paspalum notatum*), bermudagrass (*Cynodon dactylon*), dewberry (*Rubus spp.*), broomsedge bluestem (*Andropogon virginicus*), and Carolina geranium (*Geranium carolinianum*).

The typical dominant vegetation in the scrub/shrub and emergent wetlands includes drummond red maple (*Acer rubrum var. Drummondii*), green ash (*Fraxinus pennsylvanicum*), Chinese tallow tree (*Triadica sebifera*), common rush (*Juncus effusus*), savannah-panicgrass (*Phanopyrum gymnocarpon*), dotted smartweed (*Polygonum punctatum*), marsh elder (*Iva annua*), brazilian vervain (*Verbena brasiliensis*), sedges (*Carex spp.*), curly dock (*Rumex crispus*), and wax myrtle (*Morella cerifera*).

Current Soils

The GSMB is underlain entirely with Dundee-Alligator complex, undulating (De) soils (NRCS 2012) (Figure 2). The aforementioned soil is classified as hydric by the NRCS.

The Dundee-Alligator series consists of very deep, poorly drained, and slowly permeable soils that formed in clayey alluvium. They are found in backswamps and sloughs on floodplains as well as in low terraces of the Mississippi River and its tributaries. These soils have a high shrink-swell capacity, expanding significantly when wet and developing large cracks in the upper portion when dry (SCS 1974).

Property Constraints

The GSMB includes 12.2 acres of roads and rights-of-way that are not included in the total mitigation acreage. The GSMB is otherwise free of encumbrances. In addition, the GSMB and adjacent property is within unincorporated land and is absent of zoning regulations. The site is connected to and surrounded by natural and man-made tributaries and forested wetland areas that create buffers to anthropogenic effects from land use alterations.

Preliminary Jurisdictional Determination

The Preliminary Jurisdictional Determination from CEMVN was issued on August 24, 2012. A copy has been included in the Appendix B.

Water Rights

Louisiana Civil Code, Article 490, treats water resources under the theory of absolute ownership and rule of capture, provided that capture does not result in harm to neighbors. All culverts are slated to be removed. Should it be deemed necessary to retain any of these features, they would be passively maintained unless hydrologic monitoring reports reveal a need for maintenance. Should this occur, appropriate action will be taken with IRT approval.

3.3 General Watershed Characteristics

Water Sources and Losses

The sole source of water to the GSMB is direct precipitation, which may be allowed to saturate and inundate

the site for longer durations due to high water tables associated with seasonal high water events on the Mississippi River. The average annual precipitation in the vicinity of the project area is approximately 61 inches. July is the wettest month of the year with an average precipitation of 6.8 inches, and October is the driest month of the year with an average precipitation of 3.1 inches. Average annual runoff ranges from 12 to 20 inches in this region. Evaporation exceeds rainfall seven months of the year in this region.

Hydroperiod

Hydric soils indicate that in the recent past, the site was inundated for at least 14 consecutive days per year. This site is entirely comprised of Dundee-Alligator soils, which, in this area, typically have a seasonal high water table between the surface and two feet below the surface.

3.4 Congruence with Local Action Plans

The GSMB helps further the goals of the Upper Terrebonne Basin Water Quality Improvement Project developed as part of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) legislation. As described in this prospectus, the GSMB addresses many of the same watershed issues highlighted by the project, including water quality, wildlife habitat, waterborne debris, erosion, sedimentation, flooding, and the overall environmental health of the water resources.

The GSMB also works in conjunction with the Louisiana Department of Natural Resources False River Ecosystem Restoration Project. This project calls for the modification of drainage networks to slow storm flow and increase sediment retention. The False River Restoration Project identifies mitigation banks as potential partner in these efforts. Among other improvements, the GSMB would certainly contribute to reducing sediment runoff.

3.5 General Bank Need

There are currently three approved mitigation banks located in the proposed primary service area of the GSMB, HUC 08070300. However, the inventories at two of these banks are almost entirely exhausted, leaving all compensatory mitigation in this area to be fulfilled from a sole supplier.

In addition to providing mitigation for residential and commercial development related to continued population growth, the GSMB will provide mitigation for the continuation of oil and gas exploration and production, which have occurred historically in the proposed primary and secondary service areas. Additionally, it is anticipated that numerous pipelines will be constructed across the service areas of the GSMB in the near future as oil and gas products from Texas and Northwest Louisiana are transported to Mississippi River refineries along the I-10 corridor between Baton Rouge and New Orleans.

3.6 Technical Feasibility

The GSMB has a high degree of technical feasibility. The site operators have extensive experience developing similar projects, and the actions required to develop the GSMB are routine. Furthermore, the presence of bottomland hardwood habitat adjacent to the GSMB indicates that the site is conducive to successful restoration efforts.

4.0 BANK ESTABLISHMENT

4.1 Management Summary

Hydrologic Restoration

The primary sources of hydrology to the proposed GSMB are rainfall and high water tables associated with high water events on the Mississippi River. Rainfall is estimated to be approximately 61.1 inches per year (NRCS 2011). As part of the restoration process, the interior ditches currently in place to move surface and subsurface water off the site will be removed or modified. These features flow primarily to the south and eventually into False River. The diversion of this water prevents ponding and saturation within the upper portions of the soil horizon. The modification of these drainage features combined with the slow infiltration

and low permeability of the site's heavy clay soils will help to re-establish wetland hydrology throughout the proposed GSMB. Figure 2 presents the location of culverts to be removed and drainage features to be modified. Figures 4, 5 and 6 present cross-section locations and profiles.

There are two existing drainageways within the GSMB. The central drainageway currently traverses the property from northwest to southeast in the lowest elevation found on the property. The secondary drainageway, currently an emergent wetland with a small excavated channel running centrally through it, is considerably smaller and located parallel to and west of the central drainageway. The primary drainageway will be completely backfilled, and all culverts will be removed to encourage surface flow and eliminate impounding (Figure 2). The existing spoil material of the secondary drainageway will be degraded by discing, thereby restoring natural elevation. This action will further slow the movement of water through this drainage feature, resulting in increased infiltration and nutrient uptake by hydrophytic vegetation.

Drainage Area

Because of the ditching and drainage features present on site, water currently moves across the site primarily through the two parallel drainage ways that transect the site (Figure 3). While the drainage area will remain the same post-project, the project will allow surface flow, currently directed to and contained within the drainageways, to cross the site via sheet flow. This alteration will lead to an increase in duration of saturation and inundation, helping to restore historic hydrologic conditions. This drainage area has been estimated based on topographic maps and HUC areas and is presented in Figures 1 and 8.

Vegetative Restoration – Bottomland Hardwood Re-Establishment

For the 231.5 acres of pasture proposed for designation as bottomland hardwood re-establishment, an appropriate combination of hard and soft mast producing bare-root stock will be planted. Two species assemblages will be selected and planted based on elevation. The specific breakdown of each assemblage to be planted will be representative of those historically common to bottomland hardwoods of the area. These species assemblages are identified in *The Natural Communities of Louisiana*. These assemblages and their planting locations will be stated in the MBI. Spacing of the proposed planting in areas designated as re-establishment will be 9 feet x 9 feet for an initial density of 538 trees per acre. Planting densities, planting success rates, escrow or bond sum release rates, and monitoring requirements will be consistent with other recently implemented CEMVN approved mitigation banks.

Vegetative Restoration – Baldcypress/Tupelo Swamp

For the 14.9 acres of emergent wetlands and "Other Waters of the United States" proposed for designation as baldcypress/tupelo swamp re-establishment and rehabilitation, restoration will include removal of invasive plant species and planting with desirable baldcypress/tupelo swamp species (bare-root stock).

Soils in the fields within the total project area will be mechanically prepared for vegetative plantings. Deep-ripping will be used to alleviate soil compaction and encourage air and water pore space for root growth.

Invasive Species Control

Invasive plant species, such as the Chinese tallow tree (*Triadica sebifera*) growing near the planted area, will be removed by shredding and/or herbicidal treatment immediately after initial planting. The percent cover of invasive plants will be monitored during short-term and long-term success monitoring, and appropriate action will be taken if needed. Currently, only a minimal amount of Chinese tallow exists on the site.

Monitoring

At a minimum, monitoring reports shall be completed in the spring (when new growth makes identification practicable) of Years 1, 3, 5, 10, 15, and prior to and following the first thinning operation. Reports will be submitted by December 31 of each monitoring year.

4.2 Proposed Service Area

The GSMB is located in the Lower Grand Watershed, HUC 08070300. Accordingly, 4LR proposes HUC 08070300 as the Primary Service Area of the GSMB. The West-Central Louisiana Coastal Watershed, HUC 08090302, is proposed as the Secondary Service Area of the GSMB (Figure 1).

5.0 OPERATIONS

5.1 Future Ownership and Long-Term Management

Sponsor/Operations Manager/Long-Term Management

Fourth Louisiana Resource, LLC
412 N. Fourth Street, Suite 300
Baton Rouge, Louisiana 70802
(225) 372-6161
Frankie@res.us
POC: Frankie Savoy

Landowner/Long-Term Ownership

Fourth Louisiana Resource, LLC
412 N. Fourth Street, Suite 300
Baton Rouge, Louisiana 70802
(225) 372-6161
Frankie@res.us
POC: Frankie Savoy

Agent

Fourth Louisiana Resource, LLC
412 N. Fourth Street, Suite 300
Baton Rouge, Louisiana 70802
(225) 372-6161
Frankie@res.us
POC: Frankie Savoy

5.2 Perpetual Site Protection Mechanism

The GSMB will be protected in perpetuity by conservation servitude pursuant to Louisiana Revised Statute 9:1271 *et seq*. The servitude will be held by a conservation-oriented 501(c)(3) organization to be determined. The servitude will inure and run with the property title.

The servitude will prohibit activities such as clear cutting, fill discharges, cattle grazing, or other commercial surface development that would diminish the quality or quantity of restored wetlands.

5.3 Long-Term Management Strategy

The Sponsor will ensure the long-term success and sustainability of the GSMB through mechanisms including vegetative and hydrologic maintenance as necessary, site monitoring, invasive species management, establishment of financial assurances, and protection in perpetuity by conservation servitude. A long-term management plan will be included in the MBI.

5.4 Sponsor Qualifications

4LR is a wholly owned subsidiary of Resource Environmental Solutions, LLC (RES). RES will be the entity responsible for bank land management and administration. RES has over 17,000 acres of approved wetland and stream mitigation in the United States with another 4,000 currently under development. The company operates 27 distinct mitigation banks and works in more than 10 USACE districts across the country. RES has a profile at www.res.us.

6.0 CONCLUSION

In summary, the GSMB has the potential to restore 246.4 acres of forested wetlands, including 231.5 acres of re-established bottomland hardwood forested wetland ecosystem, 5.9 acres of re-established baldcypress/tupelo swamp ecosystem, and 9.0 acres of rehabilitated baldcypress/tupelo swamp ecosystem. The Sponsor has determined through the thorough examination of historical evidence that the GSMB has a high probability of regaining its original characteristics and functions. Through actions such as restoring the natural sheet flow, restoring natural vegetation, and improving water quality downstream, the implementation of the GSMB would improve local aquatic resources and habitats while also contributing to the local action plans.

7.0 REFERENCES

Code of Federal Regulations, Title 33, Parts 325 and 332 and Title 40, Part 230, as published on pages 19594-19704 in the Federal Register dated 10 April 2008.

United States Department of Agriculture – Natural Resources Conservation Service, Web Soil Survey, Pointe Coupee Parish, Louisiana, Retrieved August 2012.
http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

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PLANTS Database – USDA PLANTS, Retrieved August 2012.
http://plants.usda.gov/

Louisiana Department of Environmental Quality (2010) *Nonpoint Source Management Plan* [website]. Louisiana Department of Environmental Quality. Accessed August 21, 2012.

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The Natural Communities of Louisiana (Louisiana Natural Heritage Program, August 2009.
Available URL: http://www.wlf.louisiana.gov/sites/default/files/pdf/page_wildlife/6776-Rare%20Natural%20Communities/ LA_NAT_COM.pdf

Natural Resources Conservation Service (2010) *Web Soil Survey* [website]. U.S. Department of Agriculture, Natural Resources Conservation Service, *Soil Survey Staff*. Accessed August, 2012. Available URL: http://websoilsurvey.nrcs.usda.gov/app/

Louisiana Department of Environmental Quality 303(d) Impaired Waterbodies List, 2006.

Soil Conservation Service (1974) *Soil Survey of Pointe Coupee Parish, Louisiana*. U.S. Department of Agriculture Soil Conservation Service. August 1987.

False River Ecosystem Restoration Status Update and Alternative Action Plan, 2012, Accessed October, 2012. Available URL: http://dnr.louisiana.gov/assets/OCM/False_River_Project/May2012_False_River_AlternativeActionPlan_presentationFinal.pdf

Upper Terrebonne Basin Water Quality Improvement Project, Phase 2A Final Report, 2009. Accessed October, 2012. Available URL: http://www.utbwatershed.com/pdf/DOCS/PhaseTwo_FinalReport.pdf

APPENDIX A

FIGURES

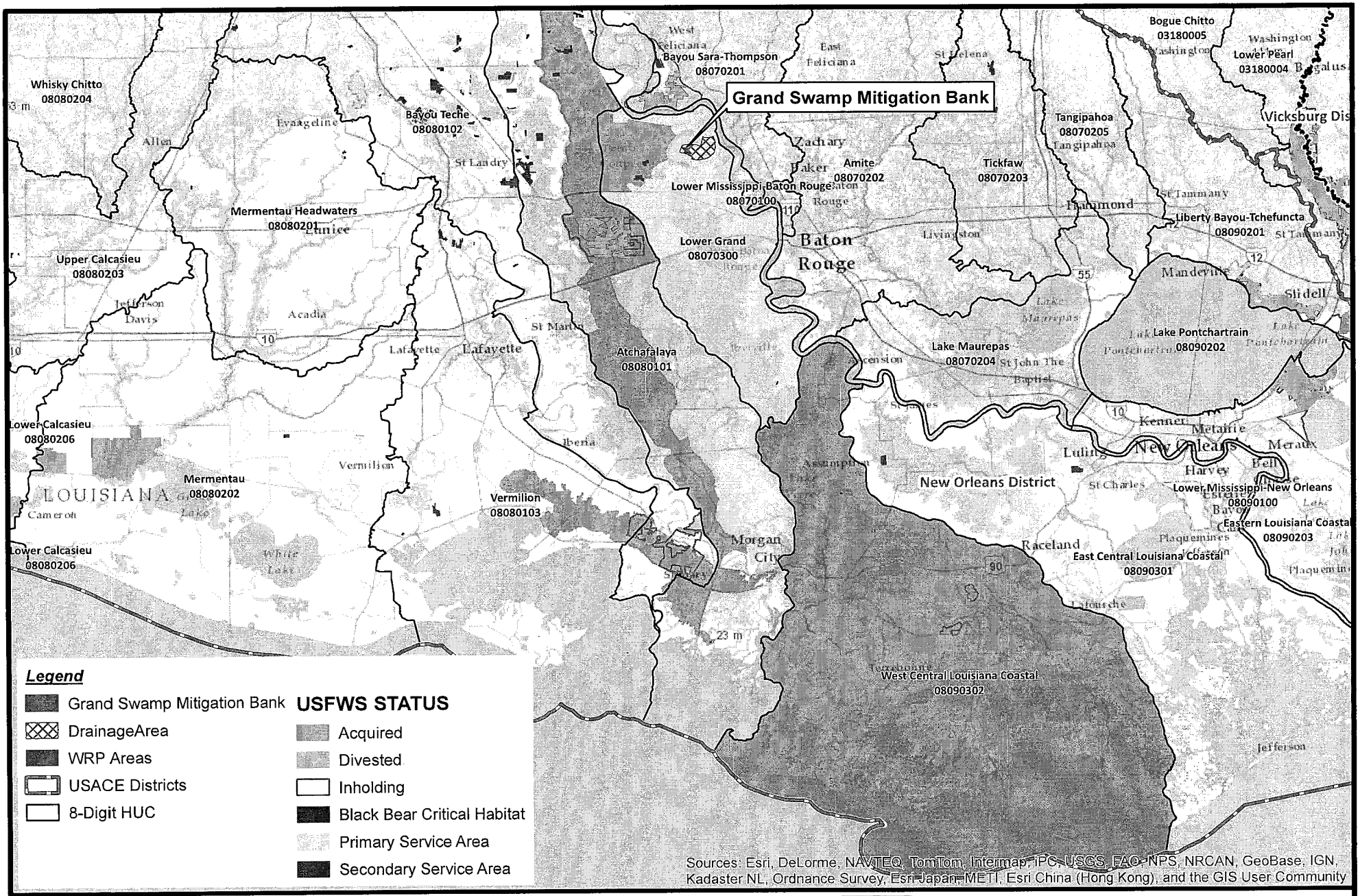

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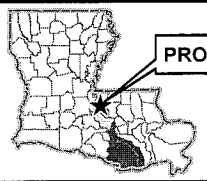
Figure1_GSMB_ServiceDrainageAreaMap_2012.mxd

FIGURE 1

SERVICE AREA & DRAINAGE AREA MAP

GRAND SWAMP MITIGATION BANK
POINTE COUPEE PARISH, LOUISIANA



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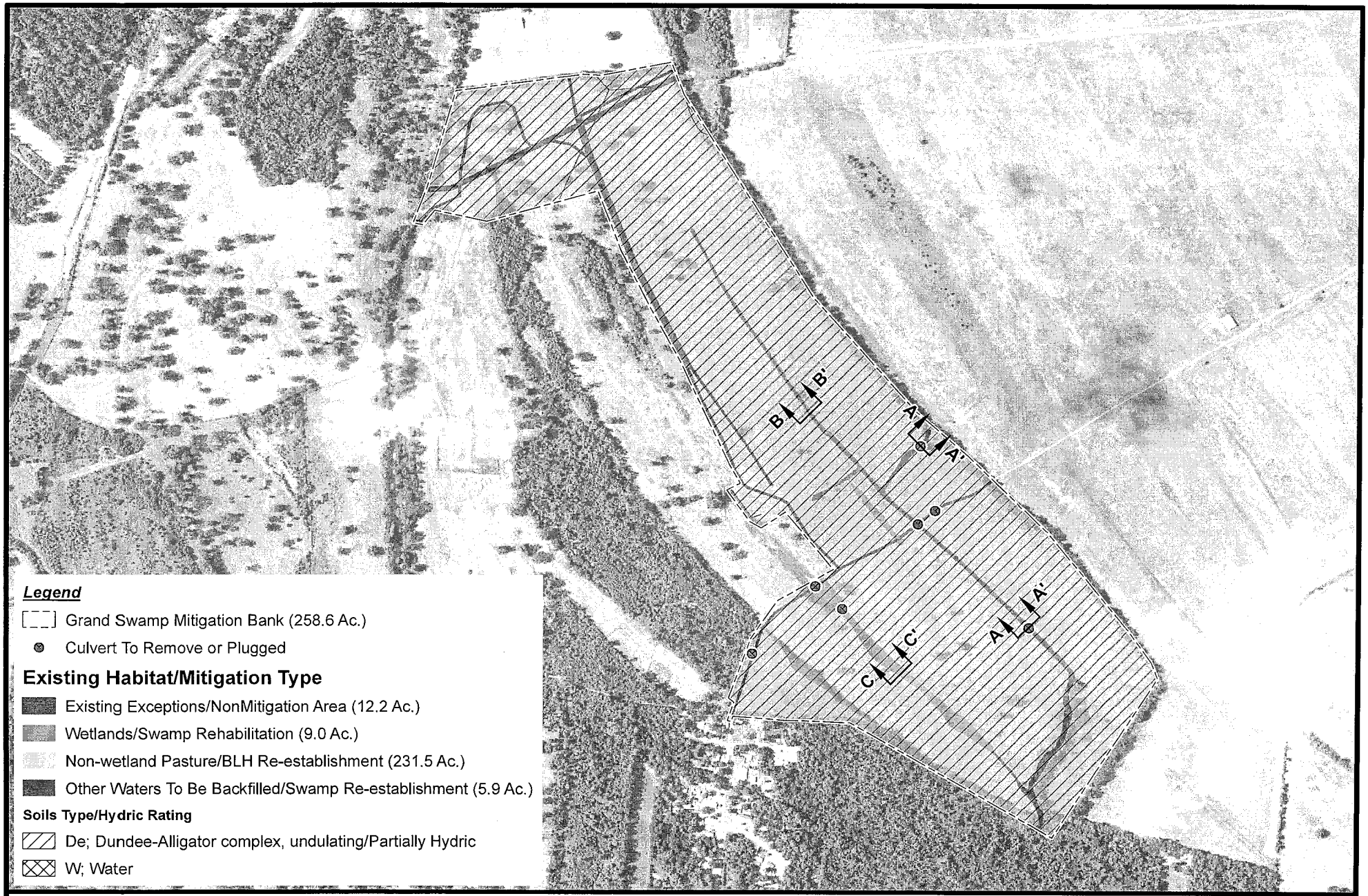
Resource
Environmental
Solutions



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Feet

Figure2_GSMB_MitigaitonPlanMap_2012.mxd

FIGURE 2
PROPOSED HYDROLOGIC RESTORATION PLAN, SOILS, EXISTING HABITAT, MITIGATION TYPE, AND CROSS-SECTION LOCATION MAP

GRAND SWAMP MITIGATION BANK
POINTE COUPEE PARISH, LOUISIANA

res
Resource Environmental Solutions

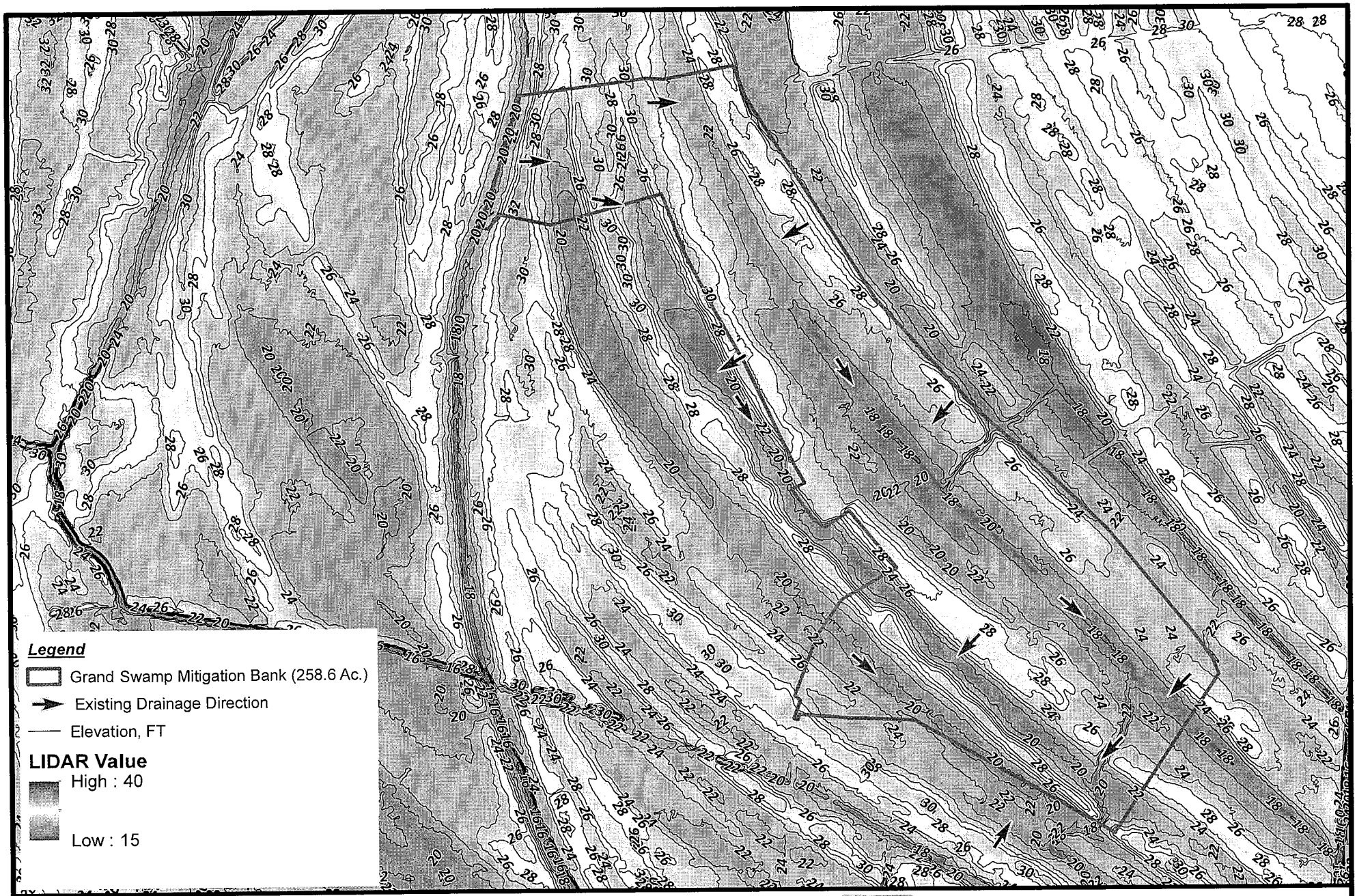

FIGURE 3

CURRENT HYDROLOGY MAP

GRAND SWAMP MITIGATION BANK
POINTE COUPEE PARISH, LOUISIANA

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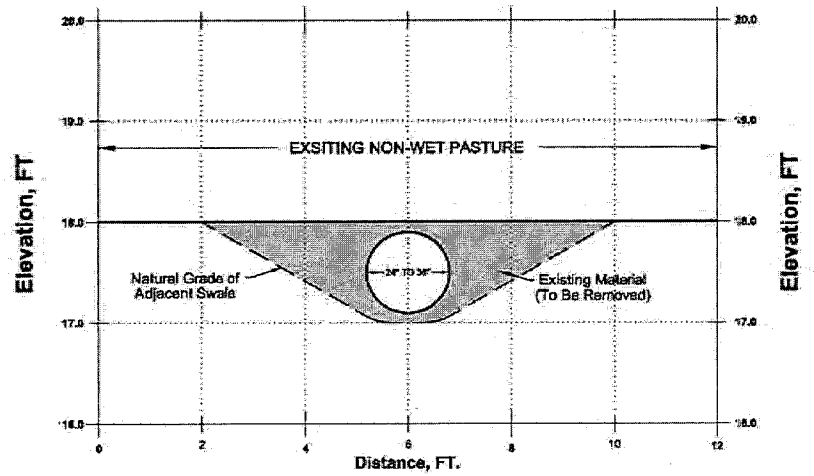
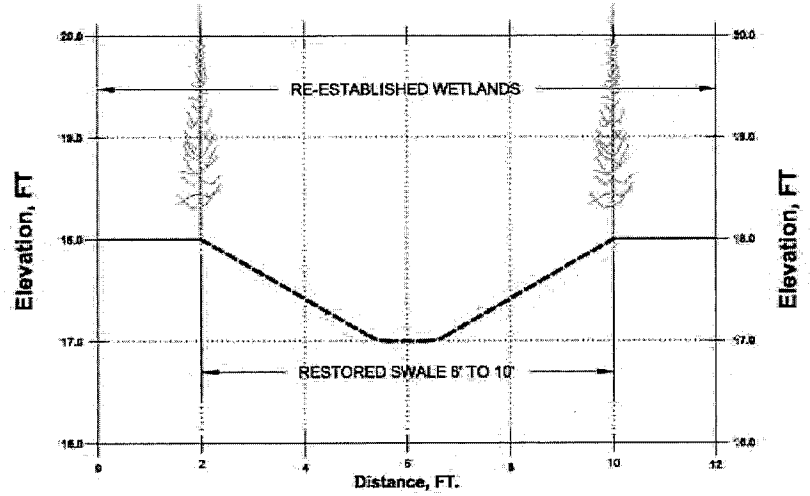


TYPICAL CROSS-SECTION TYPICAL CULVERT



TYPICAL CROSS-SECTION
PROPOSED CULVERT REMOVAL/SWALE RESTORATION

0' 2' 4'

Horizontal Scale
Vertical Scale Is As Shown

FIGURE 4

TYPICAL CROSS-SECTION A-A'

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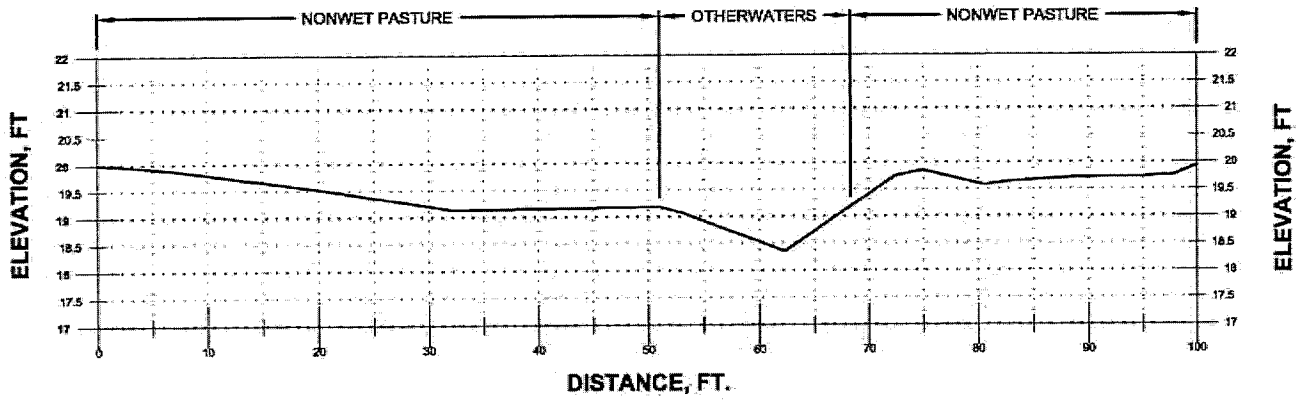
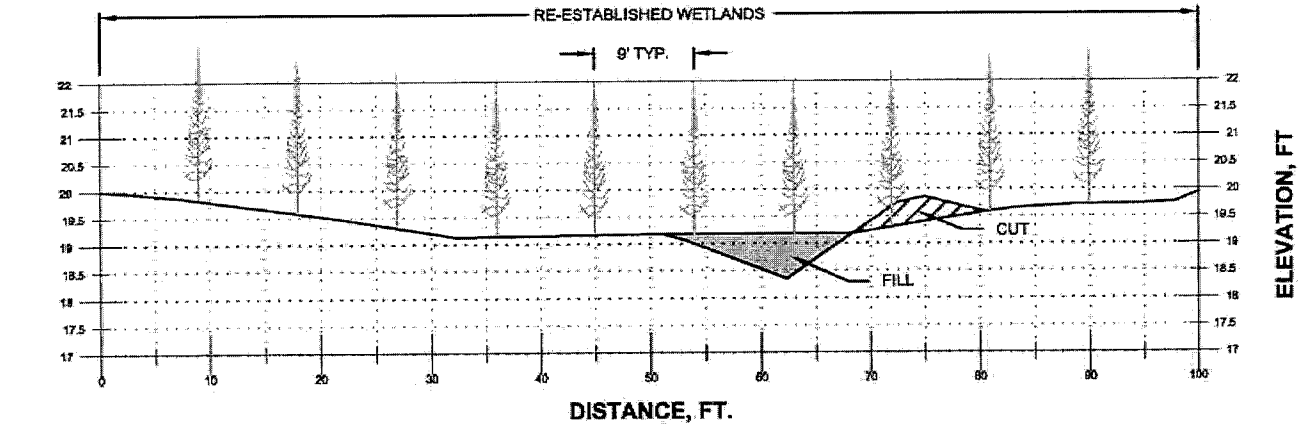
GrandSwamp_CROSS-SECTIONA-A'_2012.dwg



TYPICAL CROSS-SECTION B-B' EXISTING CONDITIONS



TYPICAL CROSS-SECTION B-B' PROPOSED DITCH BACKFILL

0' 15'

Horizontal Scale
Vertical Scale Is As Shown

FIGURE 5

TYPICAL CROSS-SECTION B-B'

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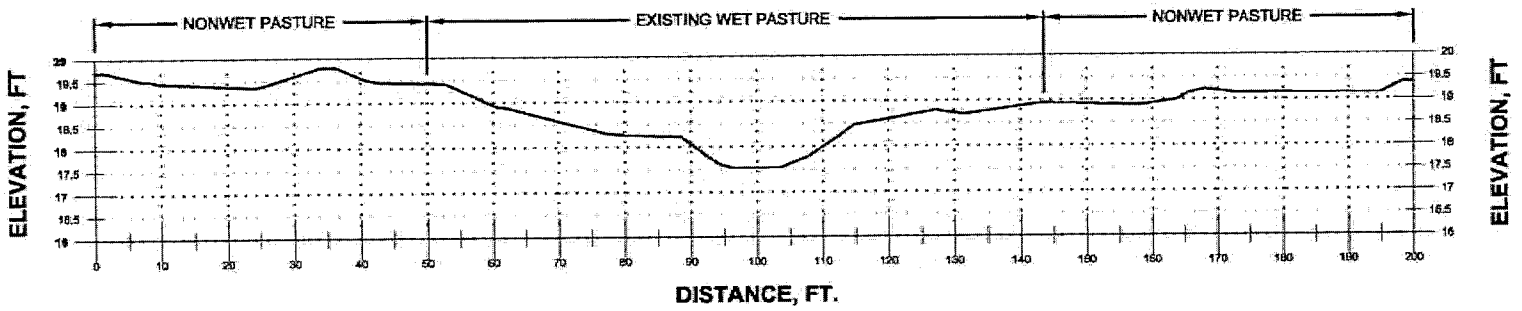
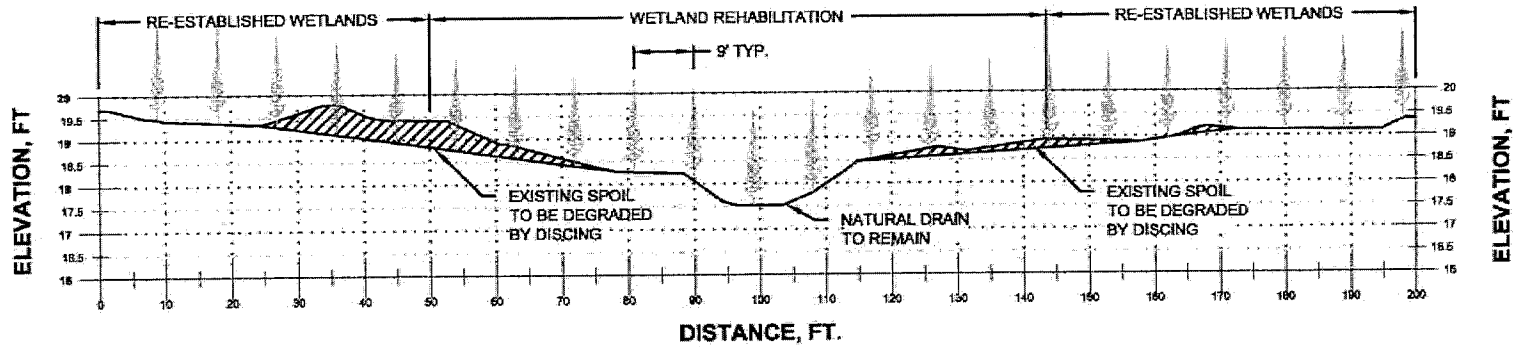
6LR001CB_A002_CROSS-SECTION A-A'_2010.dwg



TYPICAL CROSS-SECTION C-C' EXISTING CONDITIONS



TYPICAL CROSS-SECTION C-C' PROPOSED SPOIL DEGRADATION

0' 25'
Horizontal Scale
Vertical Scale Is As Shown

FIGURE 6

TYPICAL CROSS-SECTION C-C'

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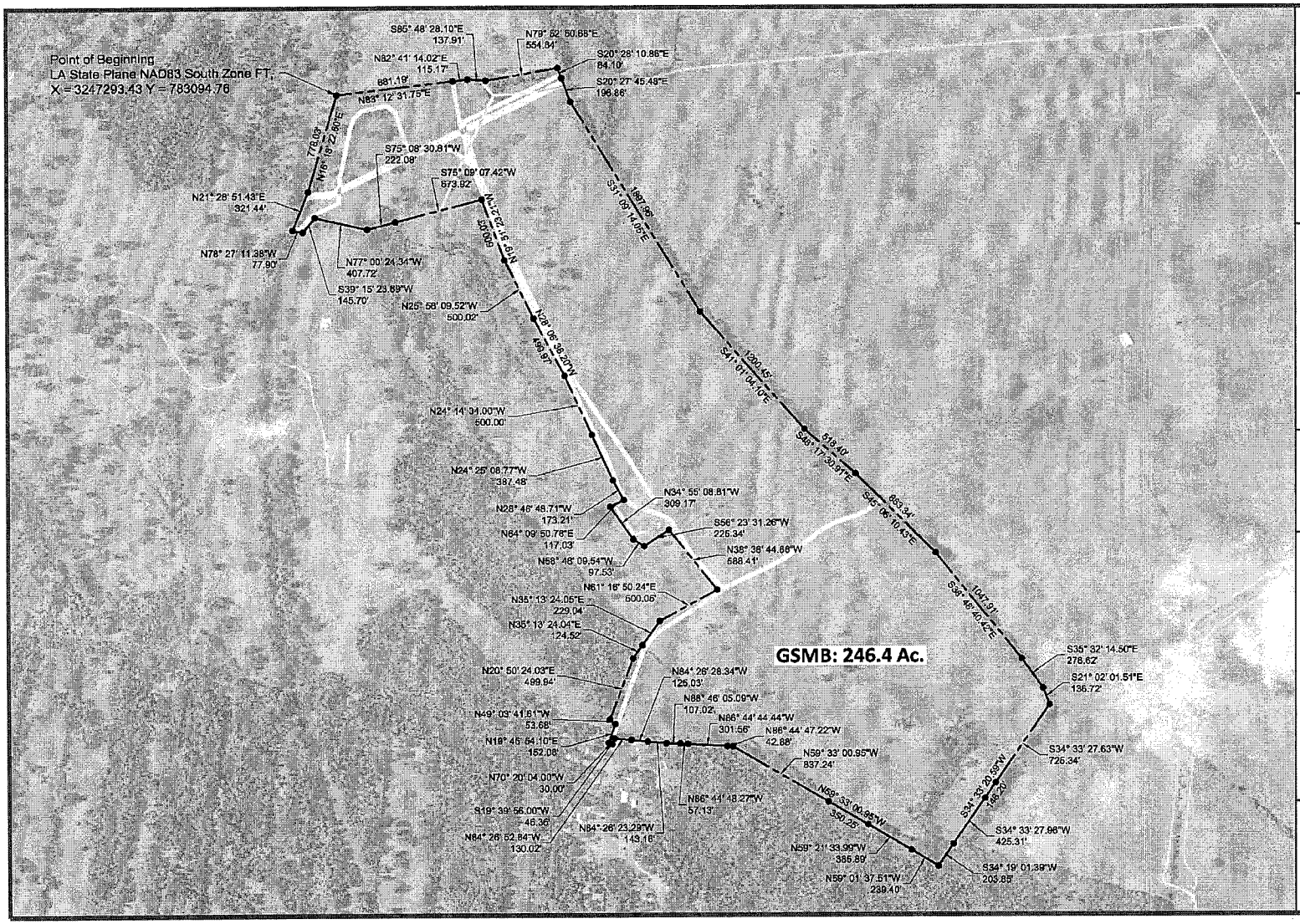
GrandSwamp_CROSS-SECTIONS-C-C'_2012.dwg



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LOUISIANA SOUTH ZONE 1985 NAD DATUM

0 700
Feet

FIGURE 7
BOUNDARY SURVEY
2010 AERIAL

GRAND SWAMP MITIGATION BANK

LOCATED IN T05S-R10E, SECTION 101

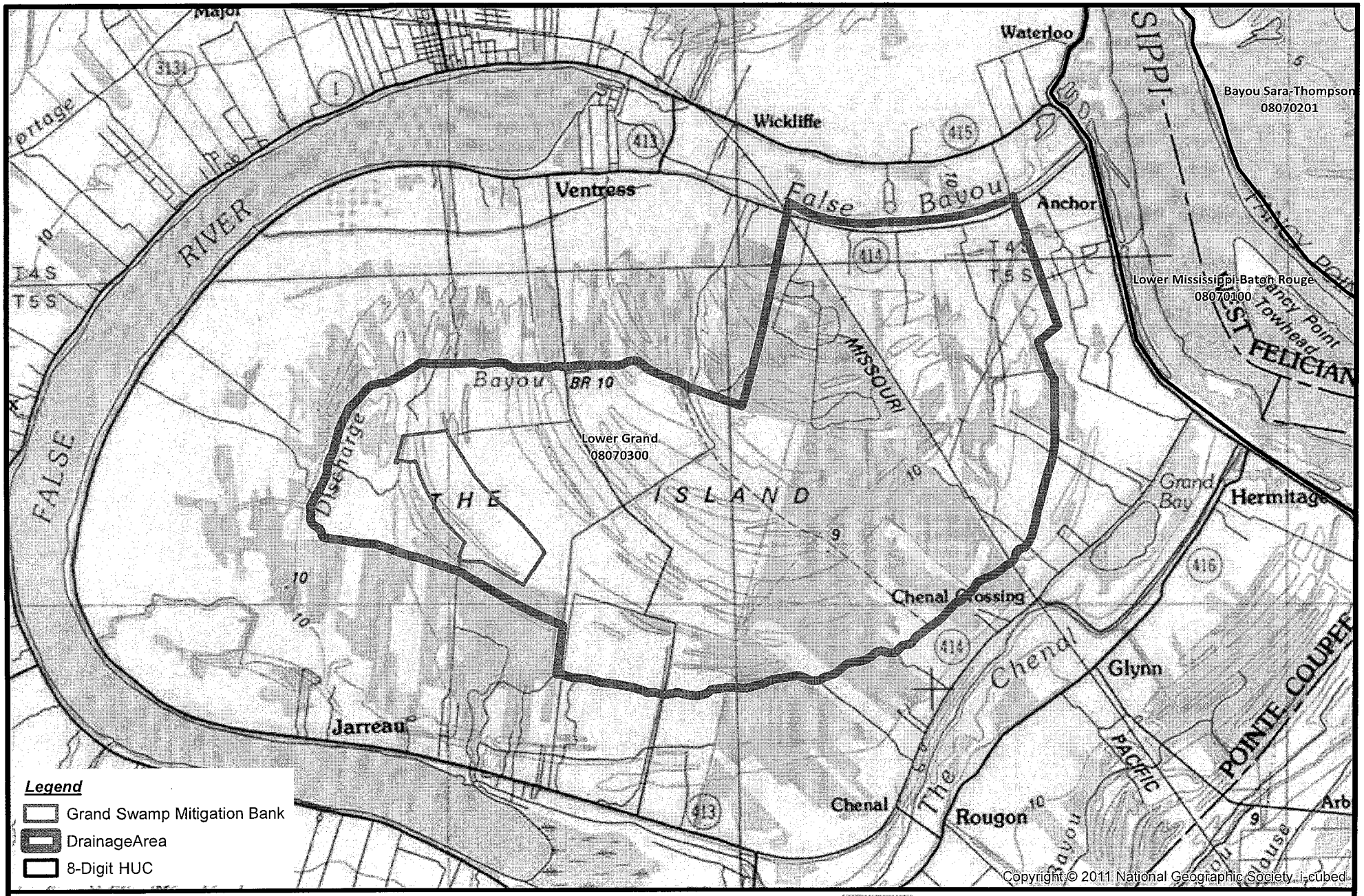
POINTE COUPEE PARISH, LOUISIANA
SEPTEMBER 20, 2012

LEGEND

GSMB (246.4 Ac.)

LESS & EXCEPT AREA (12.2 Ac.)

REFERENCE



0 2,500 5,000

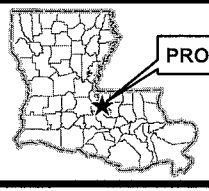
Feet

Figure8_GSMB_DetailedVicinity_DrainageAreaMap_2012.mxd

FIGURE 8

DETAILED VICINITY & DRAINAGE AREA MAP

GRAND SWAMP MITIGATION BANK
POINTE COUPEE PARISH, LOUISIANA



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APPENDIX B

PRELIMINARY JURISDICTIONAL DETERMINATION

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF

AUG 2 4 2012

Operations Division
Surveillance and Enforcement Section

Mr. Brighton Heard
Resource Environmental Solutions
108 Third Street
Baton Rouge, Louisiana 70801

Dear Mr. Heard:

Reference is made to your request for a U.S. Army Corps of Engineers' (Corps) jurisdictional determination on property located in Section 101, Township 5 South, Range 10 East, Pointe Coupee Parish, Louisiana (enclosed map). Specifically, this property is identified as a 317.4 acre tract North of Woodview Lane, East of Bergeron-Haydell Lane and West of Discharge Bayou.

Based on review of recent maps, aerial photography, soils data, the information provided with your request, and a previous determination, we have determined that part of the property is wetland and may be subject to Corps' jurisdiction. The approximate limits of the wetland are designated in red on the map. A Department of the Army (DA) permit under Section 404 of the Clean Water Act will be required prior to the deposition or redistribution of dredged or fill material into wetlands that are waters of the United States. Additionally, a DA permit will be required if you propose to deposit dredged or fill material into other waters subject to Corps' jurisdiction. Other waters that may be subject to Corps' jurisdiction are indicated in blue on the map.

This delineation/determination has been conducted to identify the limits of the Corps' Clean Water Act jurisdiction for the particular site identified in your request. This delineation/ determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If the property owner or tenant is a USDA farm participant, or anticipates participation in USDA programs, a certified wetland determination should be requested from the local office of the Natural Resources Conservation Service prior to starting work.

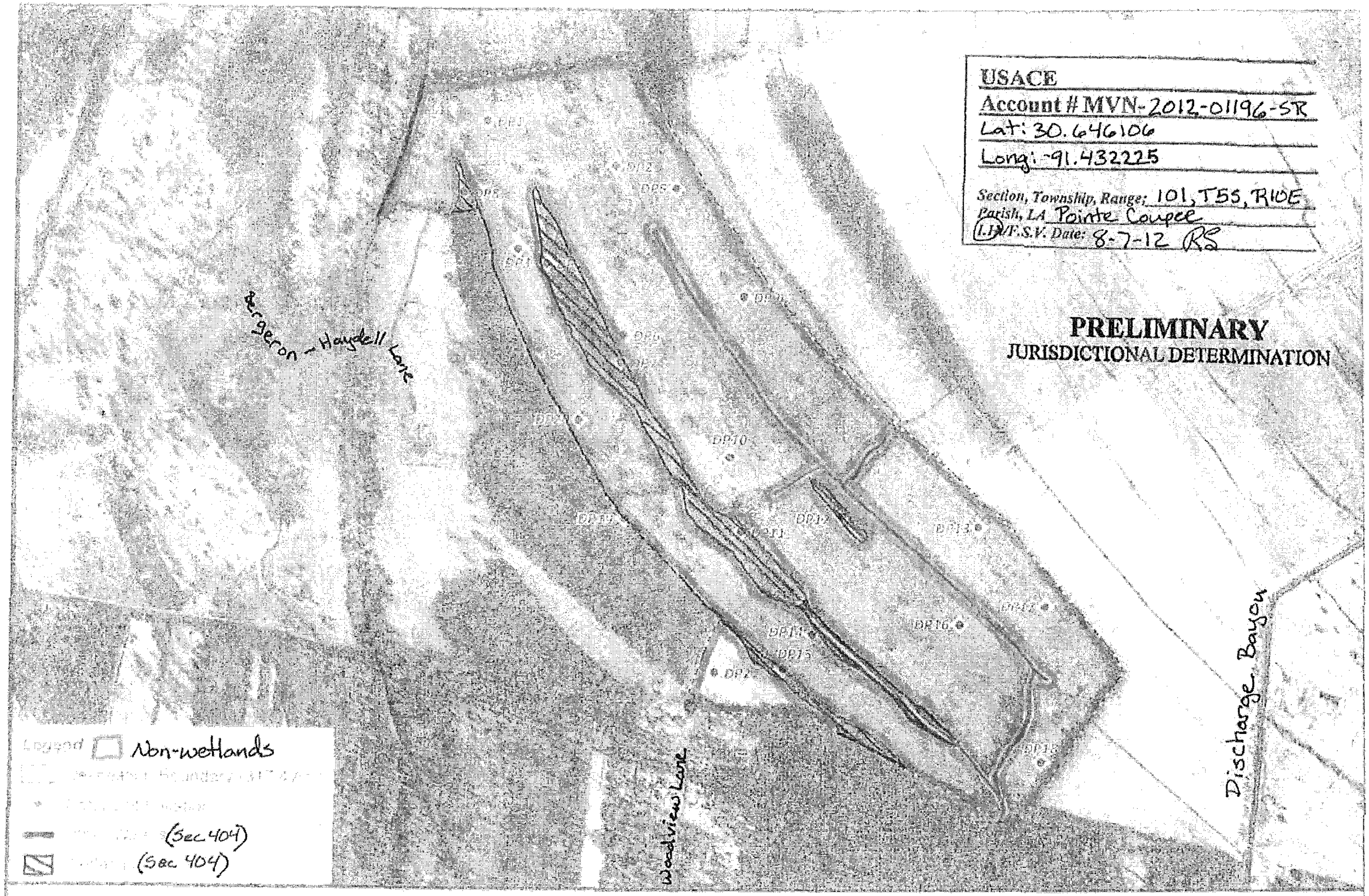
You are advised that this preliminary jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date or the District Commander has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

Should there be any questions concerning these matters, please contact Dr. Rosie Schwamenfeld at (337) 291-3045 and reference our Account No. MVN-2012-01196-SR. If you have specific questions regarding the permit process or permit applications, please contact our Western Evaluation Section at (504) 862-1950. The New Orleans District Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please complete the survey on our web site at http://per2.nwp.usace.army.mil/survey.html.

Sincerely,

Pete J. Serio
Chief, Regulatory Branch

Enclosures



USACE
Account # MVN-2012-01196-SR
Lat: 30.646106
Long: -91.432225
Section, Township, Range: 101, T5S, R10E
Parish, LA Pointe Coupee
I.H/F.S.V. Date: 8-7-12 RS
PRELIMINARY
JURISDICTIONAL DETERMINATION
Bergeron - Haydell Lane
Woodview Lane
Discharge Bayou
DP10
DP13
DP16
Non-wetlands
(Sec 404)
(Sec 404)

FIGURE 3

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

District Office: New Orleans District | File/ORM #: 2012-01196-SR | PJD Date: Aug 7, 2012

State: LA | City/County: Pointe Coupee

Nearest Waterbody: unnamed trib. of Discharge Bayou

Location: TRS, LatLong or UTM: T5S, R10E, Section: 101
Lat: 30.646106, Long: -91.432225

Name/ Address of Person Requesting PJD: Brighton, Heard
Resource Environmental Solutions
108 Third Street
Baton Rouge, Louisiana 70801

Identify (Estimate) Amount of Waters in the Review Area:

Non-Wetland Waters: 7608 linear ft | width | acres | Stream Flow: Intermittent

Wetlands: 23.5 acre(s) | Cowardin Class: Palustrine, emergent

Name of Any Water Bodies on the Site Identified as Section 10 Waters: Tidal: | Non-Tidal:

☑ Office (Desk) Determination
☐ Field Determination: Date of Field Trip:

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☑ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☑ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps
- ☐ Corps navigable waters' study:
- ☑ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☑ USGS 8 and 12 digit HUC maps.
- ☑ U.S. Geological Survey map(s). Cite quad name: New Roads
- ☑ USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS wss
- ☑ National wetlands inventory map(s). Cite name: USFWS nwi
- ☐ State/Local wetland inventory map(s):
- ☑ FEMA/FIRM maps: lidar
- ☐ 100-year Floodplain Elevation is:
- ☑ Photographs: ☑ Aerial (Name & Date): CIR: 98, 04, 08., 10
  - ☐ Other (Name & Date):
- ☑ Previous determination(s). File no. and date of response letter: MVN-2011-00999-SC (7-26-11)
- ☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Rose Schwaverfeld 8-7-12
Signature and Date of Regulatory Project Manager (REQUIRED)

Brighton Heard by mail dated 5-7-12
Signature and Date of Person Requesting Preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Brighton Heard	File Number: 2012-01196-SR	Date: AUG 24 2012
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
x	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/cecw/pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.